



# **Preliminary Environmental Information Report**

## **Volume 4 Appendix 13.1**

Materials and Waste Summary Tables for Likely Significant and  
Non-Significant Environmental Effects

## Materials and Waste Summary Tables

### 1 Potential Likely Significant Construction Effects

**Table 1: Potential Likely Significant Construction Effects**

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Active Inert and Non-Hazardous Landfill Sites in Surrey: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut; Temporary materials processing sites	Material excavation (natural ground); Material excavation (contaminated); Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites	Negative  Reduce the capacity and availability of permitted inert and non-hazardous landfill sites in Surrey from disposal of waste arising from project activities. Permanent duration.	No secondary mitigation has been able to be identified at this Preliminary Environmental Information Report (PEIR) stage. The need for mitigation will be considered further as design and assessment work continues to progress as part of the Environmental Impact Assessment (EIA), and any secondary mitigation developed will be reported in the Environmental Statement (ES).  Materials Management Strategy will detail material reuse or disposal in accordance with best construction practices.
Active treatment centres in Surrey: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut; Temporary materials processing sites	Material excavation (contaminated); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites	Negative  Reduce the capacity and availability of treatment centres in Surrey by processing site-won waste material. Temporary (short-term) duration.	No secondary mitigation has been able to be identified at this PEIR stage. The need for mitigation will be considered further as design and assessment work continues to progress as part of the EIA, and any secondary mitigation developed will be reported in the ES.  Materials Management Strategy will detail material reuse or disposal in accordance with best construction practices.
Active Hazardous Landfill Sites in the South East and wider UK: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut; Temporary materials processing sites	Processing / placement of hazardous waste; Use of materials processing sites	Negative  Reduce the capacity and availability of permitted hazardous waste landfill sites in the South East and wider UK by disposal of hazardous materials gained from project activities. Permanent duration.	No secondary mitigation has been able to be identified at this PEIR stage. The need for mitigation will be considered further as design and assessment work continues to progress as part of the EIA, and any secondary mitigation developed will be reported in the ES.  Materials Management Strategy will detail material reuse or disposal in accordance with best construction practices.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Historic Landfill Sites (Land Use)	Runnymede Channel; Spelthorne Channel; Temporary materials processing sites; Temporary material storage sites	Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Use of materials processing sites; Use of excavated material on-site; Temporary stockpiling of materials	Positive  Excavation through landfill will contribute to reducing the volume of landfill waste in the project boundary and release this land for change of use. Approximately 70% (pending completion of ground investigations) of recovered waste from landfill is estimated to be processed, recovered, or re-used within the project boundary where appropriate. Temporary materials processing sites for recovery of waste during construction. Permanent effect of change of land use along the channel route.	No secondary mitigation required as the effect is positive.
Littleton Lane (Laleham) Landfill (Littleton North Lake)	Spelthorne Channel	Material excavation (natural ground); Material excavation (contaminated)	Negative  Permanent loss of former Shepperton quarry (Littleton North Lake, currently at restoration phase) as a potential landfill site for Spelthorne flood channel. Permanent duration.	No secondary mitigation has been able to be identified at this PEIR stage. The need for mitigation will be considered further as design and assessment work continues to progress as part of the EIA, and any secondary mitigation developed will be reported in the ES.  A broad scale test of landfill market capacity, using publicly available data, indicates that there is ample market resilience of total capacity at sites within 10km of the project to meet forecasted demand.
All receptors	Off-site car parks for construction workers	Establishment and use of off-site car parks including associated traffic movements	Potential impacts during construction on all receptors.	No further mitigation identified.  The selection and design of these car parks is yet to be undertaken, at which point the need for and nature of any secondary mitigation will be considered.

## 2 Potential Likely Significant Operational Effects

**Table 2: Potential Likely Significant Operational Effects**

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Existing Mineral Safeguarding Areas (MSA)	Runnymede Channel; Spelthorne Channel; New Landforms	Existence of the flood channel and other components; New landforms	Negative  Prevention of future extraction of mineral resources from MSAs due to the existence of flood channels, new landforms, and other permanent project components. Limited to the spatial extent of the flood channel itself, new landforms, and other permanent structures that impinge on Mineral Safeguarding Area (MSAs). Estimated <5% of Surrey's MSA resources would be sterilised by the flood channels. Permanent duration.	No secondary mitigation has been able to be identified at this PEIR stage. The need for mitigation will be considered further as design and assessment work continues to progress as part of the EIA, and any secondary mitigation developed will be reported in the ES.

## 3 Non-Significant Construction Effects

**Table 3: Non-Significant Construction Effects**

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Existing Mineral Extraction Sites / Quarries	Flood embankments and Erosion prevention; Runnymede Channel; Spelthorne Channel	General construction activities (land); Construction of new pedestrian / cycle bridges at Chertsey and Desborough; Construction of road bridges	Negative  Depletion of mineral resources within existing active mineral extraction sites in Surrey from project activities. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Existing Mineral Safeguarding Areas (MSA)	Runnymede Channel; Spelthorne Channel; Molesey Weir	Material excavation (natural ground); Use of excavated material on-site; Creation/use of construction compounds	Negative  Extraction of natural resources thereby depleting the availability of natural resources for sale in mineral markets. Materials extracted in low or minor quantities relative to baseline market conditions. Excavations limited to the spatial extent of the flood channel itself and permanent duration. Temporary (short-term) restriction on access to part of a MSA in Hurst Park due to construction compound and access road for Molesey Weir.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Material resources imported from off-site (timber, steel, concrete) for project construction	All project components	General construction activities (land); General construction activities (water); Sheet piling; Creation/use of construction compounds; Construction of road bridges; Construction of new pedestrian / cycle bridges at Chertsey and Desborough	Negative  Importing of material resources for project construction as required by the construction specification and where no or insufficient site-won materials available for re-use, depleting market supplies. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Mineral / Landfill restoration sites	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut; Temporary materials processing sites	Material excavation (contaminated); Material excavation (natural ground); Processing / placement of non-hazardous waste; Bed lowering; Use of materials processing sites	Negative  Reduce the capacity and availability of landfill sites accepting inert materials for restoration in Surrey by exporting surplus materials generated by the project to restoration sites. Waste generated by the project is likely to be predominantly inert and/or non-hazardous, the majority of which is likely to be recovered on site. Adequate restoration site capacity available for the project. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Natural resources on-site (sand and gravel)	Runnymede Channel; Spelthorne Channel	Material excavation (natural ground); Use of excavated material on-site	Negative  Extraction and depletion of non-primary aggregates, outside of MSAs, not suitable for sale in mineral markets without additional processing. Materials extracted in low or minor quantities relative to baseline market conditions. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Soil structure and chemical properties	Flood embankments and Erosion prevention; New green open spaces; Temporary materials processing sites; Construction compounds; Temporary material storage sites	General construction activities (land); Processing / placement of hazardous waste; Processing / placement of non-hazardous waste; Creation/use of construction compounds; Use of materials processing sites; Temporary changes in land levels; Use of excavated material on-site; Temporary stockpiling of materials; Movement of construction vehicles, equipment and operatives (on site)	Negative  Over-compaction and alteration of physical and chemical properties of soil within the project area effecting suitability for reuse. Low impact with tertiary mitigation. Processing and handling of soils during construction, and restoration of temporary haul roads, compounds, and material processing and storage sites. Temporary (short-term) duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Topsoil and Subsoil	Runnymede Channel; Spelthorne Channel; Permanent maintenance compounds; Temporary materials processing sites; Flood embankments and Erosion prevention; New green open spaces; Construction compounds; Temporary material storage sites	Material excavation (natural ground); Material excavation (contaminated); General construction activities (land); Movement of construction vehicles, equipment and operatives (on site); Creation/use of construction compounds; Use of excavated material on-site; Temporary stockpiling of materials	Positive  Excavation and removal of topsoil and subsoil within the project area. Project may produce a surplus of topsoil and subsoil which can be utilised on other projects or for mineral restoration sites. Temporary (short-term) duration.	No secondary mitigation required as the effect is positive.

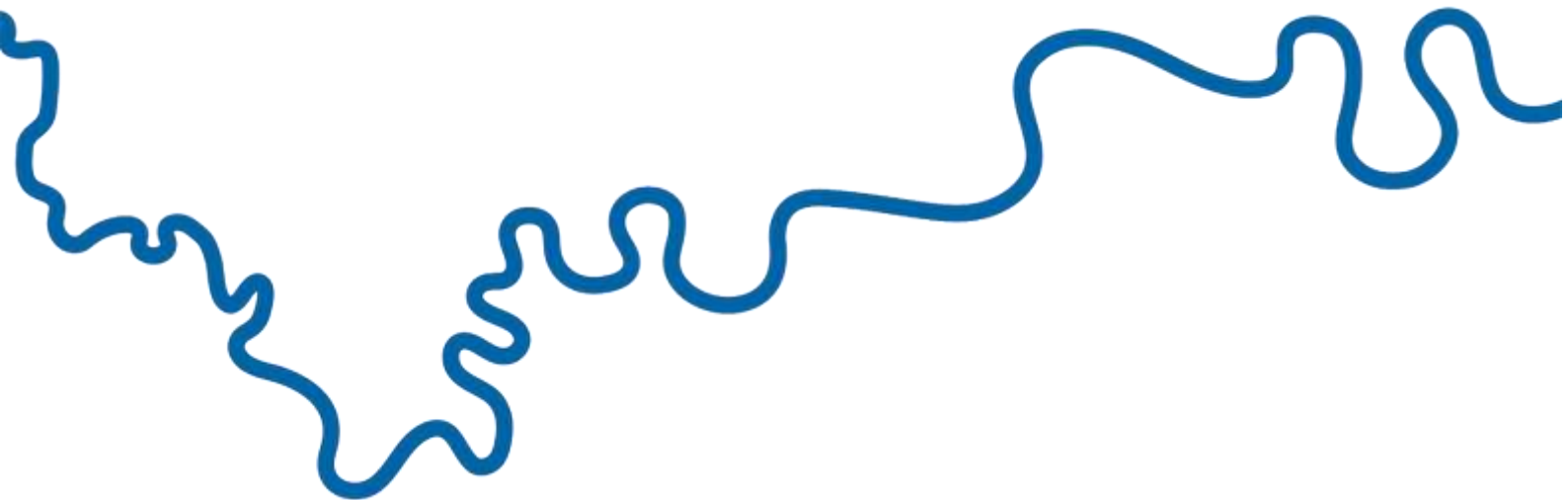
#### 4 Non-Significant Operational Effects

**Table 4: Non-Significant Operational Effects**

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Active Hazardous Landfill Sites in the South East and wider UK: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut	Channel maintenance to restore design profile	Negative  Reduce the capacity and availability of permitted hazardous waste landfill sites in the South East and wider UK by disposal of hazardous materials potentially gained from periodic maintenance of design bed levels. Future channel bed material estimated. Waste generated by maintenance is likely to be a mixture of inert and non-hazardous and could be recovered or recycled. Landfill capacity has been reviewed as part of preparing the PEIR and it is considered adequate. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Active Inert and Non-Hazardous Landfill Sites in Surrey: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut	Channel maintenance to restore design profile	Negative  Reduce the capacity and availability of permitted inert and non-hazardous landfill sites in Surrey from disposal of waste arising from periodic maintenance of design bed levels. The composition of future channel bed material is estimated at this time. Waste generated by maintenance is likely to be a mixture of inert and non-hazardous and could be recovered or recycled. Landfill capacity has been reviewed as part of preparing the PEIR and it is considered adequate. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.

Receptor Name	Project Component	Project Activity	Description of Effects	Secondary Mitigation
Active treatment centres in Surrey: Availability and Capacity	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut	Channel maintenance to restore design profile	Negative  Reduce the capacity and availability of treatment centres in Surrey by processing contaminated material arisings from periodic from periodic maintenance of design bed levels. Characteristics of future channel bed material estimated. It is possible that a small proportion of waste generated by maintenance may be contaminated and require off-site treatment. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Existing Mineral Safeguarding Areas (MSA)	Runnymede Channel; Spelthorne Channel; Flow Control Structures	Operation during flood events; Use of flow control structures; Existence of the flood channel and other components	Neutral  Reduced flood risk of Mineral Safeguarding Areas due to existence and use of the flood channels. Sand and gravel working is classified as a 'water compatible' use of land as per Annex 3 of the National Planning Policy Framework 2021 and is considered appropriate in all flood zones. Permanent duration.	No mitigation is considered necessary to reduce negative effects to an acceptable level.
Mineral / Landfill restoration sites	Runnymede Channel; Spelthorne Channel; Bed lowering downstream of Desborough Cut	Channel maintenance to restore design profile	Negative  Reduce the capacity and availability of off-site landfill facilities accepting inert materials for restoration in Surrey by exporting surplus inert materials arising from periodic flood channel design bed level maintenance. The exact types and quantities of waste arising from maintenance of design bed levels of the flood channels is estimated and is likely to be associated with the operation of the project. Likely a mixture of inert and non-hazardous material. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.
Natural resources on-site (sand and gravel)	Runnymede Channel; Spelthorne Channel; New Landforms	Existence of the flood channel and other components; New landforms	Negative  Prevention of future extraction of mineral resources outside of MSAs due to the existence of flood channels, new landforms, and other permanent project components. Permanent duration.	The identified primary and tertiary mitigation is sufficient in reducing this effect so that it is not significant. No secondary mitigation is required.





The River Thames Scheme represents a new landscape-based approach to creating healthier, more resilient and more sustainable communities by reducing the risk of flooding and creating high quality natural environments.